(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 15 September 2005 (15.09.2005)

PCT

Korean

(10) International Publication Number WO 2005/084141 A2

(51) International Patent Classification: Not classified

(21) International Application Number:

PCT/KR2005/000472

(22) International Filing Date: 22 February 2005 (22.02.2005)

(25) Filing Language:

(26) Publication Language: English

(30) Priority Data:

10-2004-0014236 3 March 2004 (03.03.2004) KR 10-2004-0089372

4 November 2004 (04.11.2004) KR

10-2004-0112140

24 December 2004 (24.12.2004) KR

(71) Applicant (for all designated States except US): KO-REA RESEARCH INSTITUTE OF BIOSCIENCE AND BIOTECHNOLOGY [KR/KR]; 52 Oun-dong Yusung-ku, Taejeon-si 305-333 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JEONG, Tae-Sook [KR/KR]; #101-1101 Parangsae Apt. Dunsan-1dong Seo-ku, Taejeon-si 302-120 (KR). LEE, Woo-Song [KR/KR]; #113-602 Hanbit Apt. Oun-dong Yusung-ku, Taejeon-si 305-335 (KR). KIM, Hyoung-Chin [KR/KR]; #105-805 Hanmael Apt. Songkang-dong Yusung-ku, Taejeon-si 305-756 (KR). CHOI, Yang-Kyu [KR/KR]; #129-1307 Hanbit Apt. 99 Oun-dong Yusung-ku, Taejeon-si 305-755 (KR). KIM, Ju-Ryoung [KR/KR]; 303-2 Jangdae-dong Yusung-ku, Taejeon-si 305-308 (KR). AN, So-Jin [KR/KR]; 140-13 Sinsung-dong Yusung-ku, Taejeon-si 305-804 (KR). IM, Kyoung-Ran [KR/KR]; 1304 Galma-dong Seo-ku, Taejeon-si 302-170 (KR). JANG,

Ki-Chang [KR/KR]; 1696 Odueng-dong Jeju-si, Jeju Province 690-150 (KR). MOON, Og-Sung [KR/KR]; #303-1105 Songkang-green Apt., Songkang-dong Yusung-ku, Taejeon-si 305-751 (KR). SON, Jun-Seock [KR/KR]; 303-2 Jangdae-dong Yusung-ku, Taejeon-si 305-308 (KR).

(74) Agent: LEE, Won-Hee; 8th Fl. Sung-ji Heights II 642-16, Yoksam-dong Kangnam-ku, Seoul 135-080 (KR).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL ABIETANE DITERPENOID COMPOUND, AND COMPOSITION COMPRISING EXTRACT OF TORREYA NUCIFERA, OR ABIETANE DITERPENOID COMPOUNDS OR TERPENOID COMPOUNDS ISOLATED FROM THEM FOR PREVENTION AND TREATMENT OF CARDIOVASCULAR DISEASE

(57) **Abstract:** The present invention relates to a composition for the prevention and the treatment of cardiovascular disease containing extracts of *T. nucifera* or abietane diterpenoid compound or terpenoid compound isolated from the same as an effective ingredient. *T. nucifera* extracts or abietane diterpenoid compound or terpenoid compound isolated from the same of the present invention not only shows excellent anti-oxidative activity to LDL but also effectively inhibits ACAT activity. Further, *T. nucifera* extracts of the present invention reduce blood LDL cholesterol and total cholesterol. Therefore, the composition of the present invention can be effectively used for the prevention and the treatment of cardiovascular diseases including hyperlipidemia and atherosclerosis caused by the LDL oxidation and the synthesis and accumulation of cholesteryl ester.

